AMENDMENTS

Please amend the claims as follows:

1. (previously presented) An x-ray therapy system for artifact reduction, the system comprising:

an x-ray source having a data output responsive to an x-ray pulse rate, the data output separate from an x-ray output; and

an imaging device responsive to x-rays from the x-ray source, the imaging device having a scan trigger input connected with the data output.

2. (previously presented) The system of Claim 1 wherein the imaging device comprises a trigger input responsive to a trigger signal synchronized with the x-ray pulse rate.

3. (cancelled)

4. (original) The system of Claim 1 wherein the imaging device comprises a two-dimensional array of photo-detectors and a display.

5. (original) The system of Claim 1 wherein the x-ray source comprises a megavoltage linear accelerator.

6. (original) The system of Claim 1 further comprising an interface circuit connected between the output and the scan trigger input.

7. (previously presented) The system of Claim 6 wherein the interface circuit comprises digital logic operable to generate trigger signals for the imaging device scan trigger input as a function of a x-ray pulse signal, the trigger signals synchronized with x-ray pulses.

8. (original) The system of Claim 1 further comprising a controller, a trigger signal provided to the scan trigger input responsive to a mode signal from the controller, the mode signal indicating one of a low dose mode and a high dose mode, the high dose corresponding to imaging device scanning synchronized with x-ray pulses and the low dose mode corresponding to scanning after the x-ray source ceases an output of x-rays.

9-19. (cancelled)

20. (currently amended) ~~The method of Claim 17 further comprising:~~

A method for artifact reduction in an x-ray therapy system, the method comprising:

(a) generating a sequence of dosage x-ray pulses and a signal with an x-ray machine;

(b) imaging in response to the dosage x-ray pulses during (a); and

(c) synchronizing (b) with the dosage x-ray pulses as a function of the signal being input to an imaging device;

(d) identifying a linear artifact; and

(e) gain correcting images of (b) as a function of a one-dimensional line associated with the linear artifact.

21. (cancelled)

22. (previously presented) A method for artifact reduction in an x-ray therapy system, the method comprising:

(a) generating an image with linear pulse intensity artifacts; and

(b) gain correcting the image as a function of a line with a gain correction image, the line associated with the linear pulse artifact.

23. (original) The method of Claim 22 wherein (a) comprises synchronizing scanning of a two-dimensional panel with x-ray pulses.

24. (original) The method of Claim 22 wherein (b) comprises increasing a gain of image lines free of the linear pulse artifacts.

25. (original) The method of Claim 22 wherein (b) comprises decreasing a gain of image lines corresponding to linear pulse artifacts.

26. (original) The method of Claim 22 wherein (a) comprises generating the image from a plurality of other images.

27. (original) The method of Claim 22 further comprising:

(c) measuring a quantity from data corresponding to the image.

28-36. (cancelled)